

CLASSIFICATION:

UNCLASSIFIED**BUDGET ITEM JUSTIFICATION SHEET
P-40**

DATE:

FEBRUARY 2004

APPROPRIATION/BUDGET ACTIVITY

OTHER PROCUREMENT, NAVY/BA-1 Ships Support Equipment

P-1 ITEM NOMENCLATURE

Submarine Support Equipment BLI: 094100 SBHD: 81PB

Program Element for Code B Items:

Other Related Program Elements

N/A

	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		To Complete	Total
QUANTITY												
COST (In Millions)			\$17.5	\$8.8	\$21.2	\$31.3	\$31.0	\$24.0	\$22.0			\$155.8
SPARES COST (In Millions)												\$0.0

PB001:

SEAWOLF UPGRADES - The funding identified corrects both mechanical and acoustic deficiencies noted during SEAWOLF Sea Trials subsequent to delivery and Selected Restricted Availabilities (SRA's). These deficiencies, if left uncorrected, would degrade the performance and acoustic signature of the ship. SRA's for SSN 21 and SSN 22 will begin in FY04 and FY05, respectively. The Modernization efforts listed above will be completed during these timeframes. Correction of deficiencies and improvements to these systems will be required to maintain the trend toward modernization. SSN 23 is scheduled to deliver in FY04. Several unique systems have been installed on SSN 23, and the post delivery INSURV will provide a comprehensive testing ground for many of these systems which will require outyear funding in this line. Additionally, Submarine Warfare System (SWS) modernization program authorized in other budgets will require upgrades to host platform interfaces and data handling subsystems. These system upgrades were rated as "Threshold" modernization requirements during the Dec 01 Submarine Modernization Conference. Other host platform subsystems and equipment utilize obsolete components that are no longer supportable. New components will be designed and procured.

PB004:**LABORATORY/FACILITIES UPGRADES/REFURBISHMENT**

This program is for the procurement of special material required to implement the military's high priority Submarine Silencing Program for operating nuclear submarines. The overall objectives and detail requirements for this program were established and defined in the CNO Specific Operational Requirements (SOR) 46-28 and NAVSEAINST C9073.2B. Only one program is in place to procure hardware systems for the purpose of measuring/monitoring, assessing, and improving the detection capability / reducing the detectability of our submarines.

Consists of replacing or refurbishing broken, old obsolete acquisition and analysis hardware and software prior to equipment failure and subsequently jeopardizing ship's safety (e.g. ranging equipment) or the execution of acoustic trials and completion of trials program objectives outlined in CNO Specific Organizational Requirements 46-28 (assessment of ship's acoustic posture, etc.) and NAVSEAINST C9073.2B (Acoustics Surveys Policy). These planned refurbishments and replacements are especially critical in order to maintain the technological advancements recently made in the area of acoustic data acquisition under the Acoustic Measurement Facilities Program (AMFIP) East and West coasts (USNS HAYES and SEAFAC, respectively). Examples of these items include: hydrophone arrays, towed arrays, ranging and tracking systems, on-board array electronics, noise sources, shore power cables and data fiberoptic cables, data analysis systems, workstations, data storage and retrieval, communications systems, analyzers, tape recorders, accelerometers, monitors, etc. These equipments are utilized on the test vessel, the listening platform, and at the laboratories. The TYCOMs have consistently rated the conduct of noise trials as a high priority funding requirement. [In FY97 and beyond, the East and West Coast requirements were merged into one funding line.]

PB5IN:

FMP (INSTALLATION) - Ship Alterations are being developed to improve the performance and correct known deficiencies in SEAWOLF Class Acoustics, Weapon Launching Systems and Shock Integrity. Funding in FMP Installation will be used for SHIPALT design, advanced planning and shipalt Installation. The alterations under this funding line have been rated as "Threshold" by the TYOCMS during the Dec 01 Submarine Modernization Conference.

P-1 SHOPPING LIST

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BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: FEBRUARY 2004
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY/BA-1 Ships Support Equipment	P-1 ITEM NOMENCLATURE Submarine Support Equipment BLI: 094100 SBHD: 81PB	
<div>PB007:</div> <div>SSN/SSBN HM&E THRESHOLD MODERNIZATION</div> <div>The TYCOMs have identified issues with Electronic Auxiliary Fresh Water (EAFW) cooled Non-Propulsion Electronic Systems (NPES) and Chill Water plant capacity during warm water operations (seawater temperature above 85F). The most practical solution is to convert the EAFW system from seawater cooling to chill water cooling of the NPES. However, the current 150 ton R-114 chill water plants originally designed for 85F seawater produce only 90 tons in 95F seawater. Funding in this line will procure and install SHIPALTs for the SSN 688 Class to improve Combat Systems cooling capability and allow for the installation of next generation Combat Systems upgrades without system degradation and/or increased system failures due to the inability of shipboard equipment cooling systems. This upgrade was rated as "Threshold" by the TYCOMs during the Dec 01 Submarine Modernization Conference. Reverse Osmosis - Funding is to develop a shipalt for SSN-21 class to replace the current steam operated distilling plant with a commercial technology reverse osmosis system. Distilled water is used onboard submarines for reactor and secondary plant fresh water makeup and for crew sanitation needs (showers, toilets, drinking water, etc).</div>		

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WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System							DATE: FEBRUARY 2004		
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-1 Ships Support Equipment						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Submarine Support Equipment BLI: 094100 SBHD: 81PB								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 2003			FY 2004			FY 2005			FY 2006		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
PB001	SEAWOLF COMPONENT UPGRADES					3,393						1,721			961
PB004	FACILITIES/LAB UPGRADES Acoustic Range Replacement Equipment					8,742			4,602			3,411			10,797
PB007	SSN/SSBN HM&E THRESHOLD MODERNIZATION Warm Water Operations					2,266				8	738.62	5,909	9	770.77	6,937
PB51N	FMP (INSTALLATION)					3,050			4,163			10,140			12,588
			0			17,451			8,765			21,181			31,283

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE FEBRUARY 2004			
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-1: Ships Support Equipment					C. P-1 ITEM NOMENCLATURE Submarine Support Equipment				SUBHEAD 81PB	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (\$M)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FISCAL YEAR (03) <u>PB004</u> Acoustic Range Replacement Equipment	1	8.7	NSWC Carderock		CPFF	PSI, VA	4/03	8/03	Yes	
FISCAL YEAR (04) <u>PB004</u> Acoustic Range Replacement Equipment	1	4.6	NSWC Carderock		CPFF	PSI, VA	4/04	7/04	No	
FISCAL YEAR (05) <u>PB004</u> Acoustic Range Replacement Equipment	1	3.4	NSWC Carderock		CPFF	PSI, VA	TBD	TBD	No	
<u>PB007</u> Warm Water Operations	8	0.738	NAVSEA		CPFF	NNS, Newport News VA	4/05	7/05	Yes	
D. REMARKS										

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P3A

INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED: WARM WATER OP TYPE MODIFICATION: SHIPALT MODIFICATION TITLE: SUBMARINE SUPPORT EQUIPMENT
PB007

DESCRIPTION/JUSTIFICATION:

The TYCOMs have identified issues with Electronic Auxiliary Fresh Water (EAFW) cooled Non-Propulsion Electronic Systems (NPES) and Chill Water plant capacity during warm water operations (seawater temperature above 85F). The most practical solution is to convert the EAFW system from seawater cooling to chill water cooling of the NPES. The current 150 ton R-114 chill water plants originally designed for 85F seawater produce only 90 tons in 95F seawater. This alteration converts the SSn688 R-114 Air Conditioning plant to microprocessor control, performs baseline testing, and completes the design of a variable geometry diffuser (VGD) compressor.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	<u>FY 2001 & Prior</u>		<u>FY 2002</u>		<u>FY 2003</u>		<u>FY 2004</u>		<u>FY 2005</u>		<u>FY 2006</u>		<u>FY 2007</u>		<u>FY 2008</u>		<u>FY 2009</u>		<u>TC</u>		<u>TOTAL</u>	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
<u>FINANCIAL PLAN (IN MILLIONS)</u>																						
<u>RDT&E</u>																					0	0.0
<u>PROCUREMENT</u>																						
INSTALLATION KITS																					0	0.0
INSTALLATION KITS - UNIT COST																						
INSTALLATION KITS NONRECURRING																						0.0
EQUIPMENT									8	6.0	9	7.0	10	7.6	8	6.1	8	6.1			43	32.8
EQUIPMENT NONRECURRING																						0.0
ENGINEERING CHANGE ORDERS																						0.0
DATA																						0.0
TRAINING EQUIPMENT																						0.0
SUPPORT EQUIPMENT																						0.0
OTHER																						0.0
OTHER																						0.0
OTHER																						0.0
INTERIM CONTRACTOR SUPPORT																						0.0
INSTALL COST									8	8.0	9	11.0	10	14.7	8	10.1	8	7.9			43	51.7
TOTAL PROCUREMENT									8	14.4	9	18.2	10	22.2	8	15.8	8	13.7	0	0.0	43	84.5

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P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: WARM WATER OPERATIONS MODIFICATION TITLE: SUBMARINE SUPPORT EQUIPMENT
PB007

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Submarine Support Equipment BLI: 094100 SBHD: H1PB

ADMINISTRATIVE LEADTIME:

PRODUCTION LEADTIME:

CONTRACT DATES: FY 2002: N/A FY 2003: N/A FY 2004: N/A FY 2005: April-05
DELIVERY DATE: FY 2002: N/A FY 2003: N/A FY 2004: N/A FY 2005: Jul-05

(\$ in Millions)

Cost:	FY 2001& Prior		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	QTY	\$	Qty	\$	Qty	\$
PRIOR YEARS																					0	0.0
FY 2000 EQUIPMENT																					0	0.0
FY 2001 EQUIPMENT																					0	0.0
FY 2002 EQUIPMENT																					0	0.0
FY 2003 EQUIPMENT																					0	0.0
FY 2004 EQUIPMENT																					0	0.0
FY 2005 EQUIPMENT									8	8.0											8	8.0
FY 2006 EQUIPMENT											9	11.0									9	11.0
FY 2007 EQUIPMENT													10	14.7							10	14.7
FY 2008 EQUIPMENT															8	10.1					8	10.1
FY 2009 EQUIPMENT																	8	7.9			8	7.9
TO COMPLETE																						

INSTALLATION SCHEDULE:

	FY 2001 & Prior	FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				TC	TOTAL
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	9	0	0	0	10	0	0	0	8	0	0	0	8	0	43
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	9	0	0	0	10	0	0	0	8	0	0	0	8	0	43

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